

REMARKS

Applicant has amended claims 1 and 27. We acknowledge the Examiner's indication that claims 25, 26, and 31 are allowed and that dependent claims 4-24, 29 and 30 would be allowable if rewritten in independent form to include the limitations recited in any base and intervening claims.

Prior Art Rejections

Examiner rejected claims 1-3 and 27-28 under 35 U.S.C. §103 (a) as being unpatentable over U.S. 4,204,134 to Fritz et al. in view of U.S. 5,066,638 to Lloyd.

Independent claim 1

We submit that neither of these references, alone or in combination, describe or suggest that the field winding support be concentrically arranged on the high temperature superconductor field winding and that the thermal reserve be concentrically arranged on the field winding support, as now recited in amended claim 1.

The Examiner construes Fritz's damper 13 as a thermal reserve. But damper 13 is not on his winding 7, as required by amended claim 1. Instead, Fritz discloses the use of an intermediary structure, the evaporator, between the thermal reserve and the winding to control the temperature in Fritz's rotor. Thus, the damper 13 is spaced apart from the winding 7 (see Fig. 1) and not on a field winding support, as required by the claim. Lloyd was cited for teaching a winding wound with HTS. Lloyd, however, fails to disclose that which was found to be lacking in the Fritz patent.

Independent claim 27

We further submit that neither Fritz nor Lloyd describe or suggest a method that includes arranging a thermal reserve on and in thermal contact with the superconducting winding. As discussed above, the Fritz patent describes a damper spaced from his winding.

Conclusion

Version with markings to show changes made

In the claims:

Claims 1 and 27 have been amended as follows:

-- 1. A high temperature superconducting rotor, comprising:

a high temperature superconducting field winding,

a field winding support concentrically arranged on [about] the high temperature superconductor field winding, and

a thermal reserve concentrically arranged on [about] the field winding support and thermally coupled to the field winding to maintain a temperature differential between the thermal reserve and the field winding not greater than about 10 K.

27. A method of limiting the rate of increase in the temperature of a superconducting winding, comprising:

concentrically arranging a thermal reserve on [about] and in thermal contact with the superconducting winding, and

maintaining a temperature differential [diferrential] between the thermal reserve and the field winding no greater than about 10 K. --

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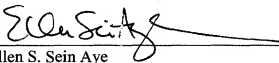
For the foregoing reasons, applicant submits that independent claims 1 and 27 are allowable. Dependent claims 2-24 and claims 28-30, which depend on claims 1 and 27, respectively, are allowable at least for the same reasons that their independent claims are allowable.

The Examiner has indicated that claims 25-26 and 31 are allowed and applicant submits that the pending claims 1-24 and 27-30 are now in condition for allowance, which action is respectfully requested. Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be allowed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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